PureLink
Digital Extender®

DD-120 Owner's Manual

1 x 2 DVI Distribution Amplifier

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1-1 Package Contents

Please make sure all of the following items are included in the package:

1) DD-120 Unit
2) DC 5V 2A Power supply adapter

1-2 General Specification

PureLink DD-120 distribution amplifier is designed to distribute a single PC digital signal into multiple monitor without any degradation of original signal quality or distortion of the image. In addition, a dedicated IC chipset makes DD-120 capable of amplifying and distributing highest quality of video signal and true HD digital contents.
DD-120 is compact, durable and low power consumption design makes it ideal solution for connection for high definition video and audio signal of digital display device, such as LCD, Plasma, LED, Projector, and etc.
In addition, DD-120 offers quick and easy plug and play, installation for commercial or residential system.

Item	Description
Model	DD-120
Input type	DVI Single Link , 1port
Output type	DVI Single Link , 2port,
Graphic Resolution	VGA / SVGA / XGA / UXGA / WUXGA 480i/p , 720i/p , 1080i/p
Connector type	DC Power Jack DVI 29 Pin Female
Supported format	DDWG DVI 1.0 HDMI 1.3A
HDCP Compliant	Yes
Power Consumption	DC 5V 2A / 10Watt Max
Dimension	7.5’(W)x 4.25’(D)x 1.37’(H) Inch
Weight	1 lbs

1-3 Operation and Reliability Specification

1. Operating Environment
   Temperature : 50F ~ 104F (10℃~ 40℃)
   Humidity : 10% ~ 80%
   Altitude : 3,000m Max.

2. Transit Environment
   Temperature : -13F ~ 140F (-25℃~ 60℃)
   Humidity : 5% ~ 95%
   Altitude : 15,000m Max.

3. Storage Environment
   Temperature : -4F ~ -49F (-20℃~ 45℃)
   Humidity : 5% ~ 95%
   Altitude : 3,000m Max.

4. Reliability
   MTBF: 90% at over 50,000 hours aging test
   - In compliance with LCD Monitor reliability test standard

1-4 Main Features

1. High Quality Picture - No Signal Loss and Digital Noise Free
Our Distribution Amplifiers are built to deliver the highest quality picture preserving the native resolutions of the video sources without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stages of connection when using distribution amplifiers, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality.

2. Signal Amplification for signal reliability and long length signal transmission
Our 5V power adapter supplies adequate power to amplify the video signals from the video source. This is necessary as the overall length from the video source to the displays is longer when using the distribution amplifiers (distance from the video source to the distribution amplifier + distance from the distribution amplifier to the display). In most cases, the overall distance that the DVI signal will need to travel is over 10ft. Due to the nature of DVI signals, amplification is necessary to warrant the video quality and reliability. (Without amplification, there may be occasional blackouts or blinking effects) With this amplification feature, your video display can be extended up to 2300ft using our fiber optical DVI cables.

3. HDCP (High-bandwidth Digital Content Protection) Compliant
Our DVI distribution amplifiers are fully HDCP compliant. Many video sources such as DVD players and Satellite/Cable Receivers are HDCP encrypted. For these video sources to be displayed correctly, HDCP compliant devices (e.g., TV, DVI Switch, distribution amplifier) are required.

1-5 Video Connection

Video Connection

1. Turn off the whole system before connecting.
2. Connect your video source's DVI output port to the DD-120's DVI input port using standard DVI cables (not included).
3. Connect your DVI display's DVI input port to DD-120's DVI output port.
4. Plug the 5V power supply to DD-120
5. Plug the 5V wall mount power supply into the wall outlet.
6. Turn on DD-120
7. Turn on your monitor
8. Turn on your video source.
9. Output# 1 and #2 status light will be lit if everything is properly installed.

EDID Management

PureLink DD-120 is capable of capturing and storing EDID of the monitor that is connected to DD-120. It is essentially important that source graphic adapter must recognize and understand the EDID of the connected monitor correctly in order to describe supported display mode to graphic adapter.
Please follow the next instruction of how to save EDID on DD-120

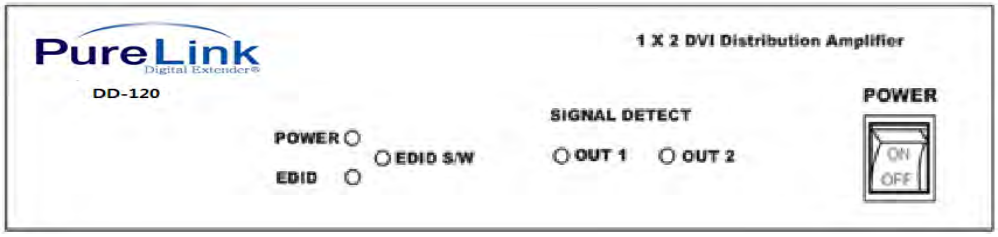
1. Connect a monitor to output # 1 of DD-120
2. EDID indicator light will blink about 2-3 times, if EDID is successfully saved.
3. Please note that EDID indicator light will blinks 5-6 times, if EDID writing is failed. In case EDID writing fails, you should check your physical connection.
4. Reboot DD-120 for the change to take effect.

*****Notice*****
Please note that a factory default EDID is set to WUXGA resolution. Thus you need to save the EDID before you turn your system on.

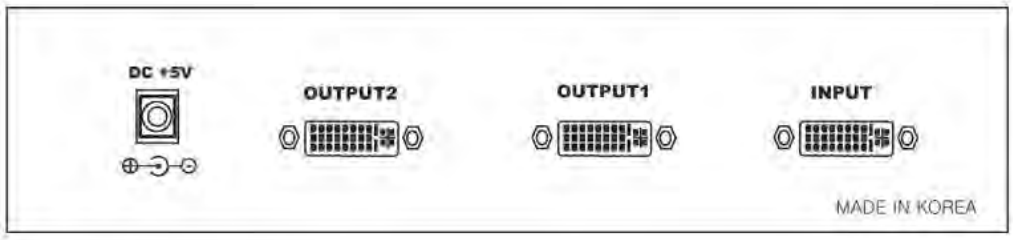
1-6 DD-120 Mechanical Specification

DD-120 Dimension: 7.5’ (W) x 4.25’ (D) x 1.37’ (H) Inch / 1 lb

On/Off switch: Power Switch
POWER: Power Indicator



EDID: EDID Indicator
EDID S/W: EDID save Button
OUT #1, #2: Output Signal Detection LED light



DC +5V: Power Receptacle
INPUT: DVI –D connector
OUTPUT1, 2: DVI Output

1-7 Technical Specification

Frequency bandwidth: 1.65 Gbps (Single Link)
Supporting Graphic Resolution: Supports all standard display resolutions up to WUXGA (2048 X 1080 / 1920 X 1200 @ 60Hz), UXGA, SXGA, XGA, VGA & 480i/p, 720i/p, 1080i/p)
Inputs: Single DVI Input / Output: Dual DVI Output /Power supply: DC 5V, 2A Adapter included

Connector Pin Assignment

DVI Input, Output

Part No.	Pin No.	Description	Remarks
DVI-D 29pin	1	TMDS DATA 2M	
	2	TMDS DATA 2P	
	3	TMDS DATA 2/4 Shield	
	4	N.C	
	5	N.C	
	6	DDC Clock	
	7	DDC Data	
	8	N.C	
	9	TMDS DATA 1M	
	10	TMDS DATA 1P	
	11	TMDS DATA 1/3 Shield	
	12	N.C	
	13	N.C	
	14	5V	
	15	GND	
	16	Hot Plug Detect	
	17	TMDS DATA 0M	
	18	TMDS DATA 0P	
	19	TMDS DATA 0/5 Shield	
	20	N.C	
	21	N.C	
	22	TMDS DATA Clock Shield	
	23	TMDS Clock P	
	24	TMDS Clock M	

1-8 Warranty

2 (Two) Year Warranty

Dtrovision warrants this PureLink DD-120 to be free from defects in workmanship and materials, under normal use and service, for a period of two (2) year from the date of purchase from Dtrovision or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, Dtrovision shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of Dtrovision.

Replacement products may be new or reconditioned.

Any replaced or repaired product or part has a ninety (90) day warranty or the reminder of the initial warranty period, whichever is longer.

Dtrovision shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to Dtrovision for repair under warranty or not.

Warranty Limitation and Exclusion

Dtrovision shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by Dtrovision or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.

1-9 Troubleshooting

Problem	Solution
Distribution Amplifier does not operate	Make sure the 5V power is plugged in the back of the unit. Check to see if the power LED light is on.
No picture(or signal) Or Poor picture	1. In case your video source is HDCP enabled, make sure your video display (HDTV) is HDCP compliant. 2. If you are using copper based DVI cable, overall length of the cables (length of the cable from video source to switch and length of the cable from switch to display) should not exceed 20ft. Exceeding 20ft. with copper based cables will result in no or poor picture quality. To extend beyond 20ft, please use fiber optical DVI extension cables such as PureLink OC series. 3. Use high quality DVI cables. 4. If you are using computers, try other refresh rate settings. Most HDTV's have refresh rate of 48Hz and computer's video cards are usually set at higher refresh rate. Try lower refresh rates. 5. Make sure all DVI connectors are tightly secured to all DVI ports. Loosened screws on the DVI connectors will result in no or poor picture. 6. Turn off all equipments (video source, switch and HDTV) and restart all equipments.
Incorrectly sized picture /resolution or No picture	Please remember that your video source will only transmit one resolution setting. To connect varying resolution displays (1920x1200 resolution display and 1024 x 768 resolution display) the resolution setting of your video source must be set to the lowest resolution setting (1024 x 768).